

Before the
Federal Communications Commission
Washington DC 20554

In the Matter of		
Utilities Telecom Council and Winchester Cator, LLC		
		RM-11429
Petition for Rulemaking to Establish Rules Governing Critical Infrastructure Industry Fixed Service Operations in the 14.0–14.5 GHz Band		

**COMMENTS OF THE
UTILITIES TELECOM COUNCIL**

The Utilities Telecom Council (“UTC”) urges the Federal Communications Commission (“FCC,” “the Commission”) to issue a *Notice of Proposed Rulemaking* in the above-referenced matter toward providing access to the 14.0-14.5 GHz band to critical infrastructure industries (“CII”)¹ on a secondary basis. Discussions conducted since UTC’s Petition for Rulemaking² was filed have underscored electric utilities’ and other CII entities’ critical need for spectrum capacity to meet new and pending regulatory requirements such as those related to the migration to “smart grids.” With primary access to clear spectrum unavailable, UTC and Winchester Cator, L.L.C. have offered a means to meet some CII needs that is carefully crafted to protect current primary services while promoting

¹ “Critical Infrastructure Industries” as used in UTC’s *Petition for Rulemaking* and herein, are defined as found in § 90.7 of the Commission’s Rules, 47 C.F.R. §90.7.

² Utilities Telecom Council Petition for Rulemaking, RM-11429 (filed May 6, 2008). *See also* Report No. 2868, Public Notice (released May 27, 2008).

spectrum efficiency. A full record is needed to explore the potential benefits of the UTC/Winchester proposal.

I. Utilities and other CII Entities Must Have Access to Spectrum for New, Critical Needs.

Electric utilities in the United States are taking the first steps of a global revolution toward the next generation of electricity infrastructure. While the need for reliable electric power – probably the most critical of services in our economy – continues to rise, environmental, cost and even national security concerns are driving U.S. policy toward greater energy efficiency, new sources of power generation and more consumer control over power use. Demand response; decentralized, distributed generation; “smart grids” that sense and repair faults to protect customers from larger outages; meters connecting appliances and home networks to utility facilities: these are huge issues facing the power industry at this moment, with gas and water utilities and other industries, such as petroleum, to follow. As outlined in the UTC/Winchester petition, the “smart grid” necessitates even more reliance on internal communications and IT networks than utilities already have, especially for data transmission. Two-way communication between utilities, their substation, transformer and line assets; their customers’ meters and appliances; and among utilities on a regional basis will generate huge amounts of data that utilities are already wondering how they will manage. Much of this communication will be wireless; however, the critical infrastructure industries currently have no RF spectrum access to accommodate these needs.

The potential conflict between smart grid requirements and the inability to comply with them due to lack of spectrum is already a concern for U.S. utilities. Federal legislation – the Energy Independence and Security Act of 2007³ -- defines the smart grid and directs various Federal entities to drive its progress, including demonstration projects, standards development and a requirement that states look for proposals from utilities that include use of advanced technologies. States already are instituting legislation and/or regulation to require smart metering and other smart grid measures.⁴

It is recognized that digital information technologies and communications network capacity are vital to this migration. Yet, utilities do not have access to the spectrum they need to support such vital communications requirements. UTC's Petition, therefore, is a timely effort to solve a growing problem.

II. Satellite Industry Concerns are Unsubstantiated; the 14.0-14.5 GHz Band Can Be Shared Successfully.

UTC is aware that representatives of the satellite industry have already expressed opposition to the Petition, and is concerned that they will continue to oppose sharing the 14 GHz spectrum regardless of any evidence presented to them. UTC and Winchester have provided detailed technical information showing that this band can be shared successfully, and have demonstrated CII entities' willingness to accept significant restrictions on their operations, coordination procedures and a single point of contact to ensure that satellite operations do not experience harmful interference, or that any

³ Pub.L.No. 110-140, Title XIII ("Smart Grid"), §§ 1301 *et seq.*

⁴ Keeping track of state measures is a moving target; however, at this time, UTC is aware of pending smart grid legislation in Pennsylvania, Arkansas and California, with additional bills believed to be under consideration and more than a dozen states believed to have passed smart metering requirements.

instances are resolved quickly. This proposal can work, and it is in the interest of CII entities to make it work successfully. As long-time licensees of shared spectrum in the private land mobile radio and unlicensed frequency bands⁵, CII entities are perhaps more accustomed to the necessities of sharing than satellite entities, which have had the luxury of large amounts of spectrum for their dedicated use. Further, while CII entities, like the satellite industry, might prefer spectrum that is dedicated to their needs given the growing requirements for spectrum for so many vital services, the CII entities view the proposed sharing of the 1.4 GHz spectrum as the best current solution to meet pressing data transmission needs. UTC has no intention of seeking co-primary status as satellite representatives have suggested. UTC and Winchester have met with satellite industry representatives and are willing to continue to do so to seek a consensus on this proposal.

III. Conclusion

UTC cannot overstate the importance of adequate spectrum access for CII entities, if they are to continue to provide the most necessary of services for everyday American life. This proposal represents an attempt to begin to meet those needs while respecting the rights of other users. UTC urges the Commission to issue a *Notice of Proposed Rulemaking* to move the proposal forward and allow development of a full record.

⁵ Hundreds of utilities operate internal mobile voice networks in the shared 150-512 MHz PLMR bands; many also operate older control networks on these frequencies on a secondary basis; and an estimated 100 million electric, gas and water meters are operating in the 902-928 MHz unlicensed band, along with more control systems. The deteriorating state of these highly congested frequencies is another reason UTC seeks different spectrum to meet new, fixed data needs.